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# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
Executive Director

### Division of Oil, Gas and Mining

JOHN R. BAZA  
Division Director

December 12, 2013

Kevin Baugh  
Tar Sands Holdings II, LLC  
6445 South Wasatch Boulevard, Suite 105  
Salt Lake City, Utah 84121

Subject: Second Review of Amended Notice of Intention to Commence Large Mining Operations Tar Sands Holdings II, LLC, Asphalt Ridge 2 Mine, M/047/0032, Uintah County, Utah

Dear Mr. Baugh:

The Division of Oil, Gas and Mining has reviewed the revised submission of the Notice of Intention to Commence Large Mining Operations (NOI) which was received November 12, 2013.

The comments in this review will need to be addressed before the NOI can be approved. In making additional changes, please use the clean copies as the base plan and provide redline/strikeout copies of the changes. When the NOI is considered complete, the Division will ask that you provide two copies with redline/strikeout removed. These copies will be stamped approved, and one copy will be returned to you.

Please call April Abate (aaa) at 801-538-5214 or Wayne Western (whw) (801-538-5263) or me at 801-538-5261 if you have questions about this letter or the attached review.

Sincerely,

Paul B. Baker  
Minerals Program Manager

PBB: aa: eb

Attachment: Map, Review Document

cc: D. Dragoo - Snell & Wilmer 15 South West Temple, Suite 1200 SLC, UT 84101-1531  
S. Rasmussen, Esq. 15 West South Temple, Suite 600, SLC, UT 84147-0429  
B. Andrews, Esq. 50 East South Temple, SLC, UT 84111

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**REVIEW OF NOTICE OF INTENTION  
TO COMMENCE LARGE MINING OPERATIONS**

**Tar Sands Holdings II, LLC  
Asphalt Ridge 2 Mine  
M/047/0032  
December 11, 2013**

**105.2 - Surface facilities map**

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
1	Fig. 7	Please denote on Figure 7 if the future mining units 1 – 13 represent years, or if they are pit sequences.	aaa	

**105.3 - Drawings or Cross Sections (slopes, roads, pads, etc.)**

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
2	Omission	Please provide topographic maps of the current topography, the end of mine topography, and final reclamation topography. The maps must be at a scale that the Division can determine the operation and reclamation plan (approximately 1 inch equal 500 feet and 5-foot contours).	whw	

**106.8 - Depth to groundwater, extent of overburden, geology**

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
3	106.8.1	Based on the groundwater quality data provided from existing monitoring wells MW-1 and MW-3, MW-1 exceeds Tier I standards for TPH-DRO and Oil and Grease. The pH in MW-1 was highly acidic (reported in the 3-4 range). Without additional characterization it is unknown if this is a natural occurrence or an anomaly associated with this well; or part of another pattern in the groundwater behavior in the area.  Groundwater information presented in the cross-sections was conceptual only due to a lack of data. MW-2 does not produce water and MW-1 and MW-3 have not been surveyed, so groundwater gradient cannot be calculated. Additional groundwater characterization is needed at this site to determine flow direction.	aaa	

**R647-4-109 - Impact Assessment**

**109.1 - Impacts to surface & groundwater systems**

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action



Initial Review  
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Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
4	106.8.1	This comment was not addressed previously in the NOI: Please provide additional detail on the water rights owned by Buena Ventura Resources Corporation (BVRC). How much water is appropriated? What are the water right identification numbers? How much water is anticipated for usage at the operation? This information was tabulated in the DWQ groundwater discharge permit application, but it was not provided in the NOI. This information should be included in this section of the NOI to assist in meeting the rule requirements that address impacts. Include a summary of the likely impacts of the water rights within one mile of the permit area.	aaa	
5	106.8.1	As noted in Comment 3, additional groundwater characterization is needed to determine whether or not a hydrologic connection exists between the groundwater from the mine area and groundwater to the east in the residential neighborhood and the potential impacts to the water rights that are located within one mile of the permit area.	aaa	

#### 109.5 - Actions to mitigate any impacts

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
6	Appendix G	The combined Spill Prevention Countermeasures and Control Plan (SPCC)/Storm Water Pollution Prevention Plan (SWPPP) prepared for the facility is not up-to-date. The plan makes several references to the use of solvents at the facility. The mine plan is to use a hot water extraction process and the SPCC/SWPPP should be updated to include this process.	aaa	
7	Appendix G	The SWPPP refers to the D-Tract. The D-Tract is not covered under this permit	aaa	
8	Appendix G Figure 2	Figure 2 in the SWPPP does not accurately identify the sediment ponds and impoundments that exist at the site. The sediment ponds, concrete impoundments, groundwater collection areas, and ditches should be evaluated to determine if these hydrologic features are designed to handle storm water and groundwater seepage at a facility this size.	aaa	
9	Omission	Additional seeps were discovered at the site that appear to be causing standing water problems in/near the pit area. The Division recommends a site visit to assess the drainage control structures and routing patterns existing on the site and update the SWPPP with a drainage control plan. The SWPPP should address all water sources at this site, both groundwater seeps and storm water, so that they can be managed properly.	aaa	
10	Omission	Berm placement and other sediment control methods need to be addressed in the SWPPP. Several locations on the site require erosion control structures.	aaa	

#### R647-4-113 – Surety

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
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Initial Review  
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Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
11	Revegetation cost worksheet 47.3 acres	The revegetation cost work sheet has 25 pages but only page 1 appears to have information that is used in the summary sheet. Please remove all unneeded pages.	whw	
12	Revegetation cost worksheet 47.3 acres	The productivity calculations are listed on page 1. The Division would prefer if the productivity calculations were on a separate worksheet. The Division does have worksheets for productivity calculations.	whw	
13	Revegetation cost worksheet 47.3 acres	The Division was unable to duplicate the revegetation costs based on numbers provided by the operator. Please check the Division's worksheets and provide additional information as needed.	whw	
14	Earthmoving cost worksheet 47.3 acres	The overburden replacement is based on a 300 hp dozer push material 100 feet on a level surface. Please provide maps or drawings showing that the overburden push will average only 100 feet. If the distance is more than 100 feet, an alternative method should be used. If the distance is more than 300 feet, for example, a loader and truck should be used.	whw	
15	Demolition cost worksheet 47.3 acres	In the reclamation plan please state how the asphalt will be disposed of and include the corresponding costs in the demolition worksheets.	whw	
16	Revegetation cost worksheet 52.31 acres	The revegetation cost work sheet has 25 pages but only page 1 appears to have information that is used in the summary sheet. Please remove all unneeded pages.	whw	
17	Revegetation cost worksheet 52.31 acres	The productivity calculations are listed on page 1. The Division would prefer if the productivity calculations were on a separate worksheet. The Division does have worksheets for productivity calculations.	whw	
18	Revegetation cost worksheet 52.31 acres	The Division was unable to duplicate the revegetation costs based on numbers provided by the operator. Please check the Division's worksheets and provide additional information as needed.	whw	
19	Revegetation cost worksheet 52.31 acres	The overburden replacement is based on a 300 hp dozer push material 100 feet on a level surface. Please provide maps or drawings showing that the overburden push will average only 100 feet. If the distance is more than 100 feet, an alternative method should be used. If the distance is more than 300 feet, for example, a loader and truck should be used.	whw	
20	Revegetation cost worksheet	Please combine the summary sheets for the 52.31 acre and 47.3 acre sections so that the total bond amount is on one sheet. The Operator can divide the categories into two subsections, but a summary sheet showing the entire bond is requested.	whw	